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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Johan Massee

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EXAMINER

TOLAN, EDWARD THOMAS

ART UNIT

PAPER NUMBER

3725

MAIL DATE

DELIVERY MODE

06/03/2011

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/501,758	Applicant(s) MASSEE, JOHAN	
	Examiner EDWARD TOLAN	Art Unit 3725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 March 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,6-16,19-22 and 28-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,6-16,19-22 and 28-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11-1-2010</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,7-11,16,20,22 and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Schow (4,055,064). Schow discloses a method of manufacturing a product having a constant expanded diameter in which a workpiece is clamped (either on an existing automobile or inherently clamped on a vise in a mechanics shop) and a first set of forming rollers (30) are rotated relative to the workpiece about a common axis of rotation (col. 3, lines 28-31), wherein the rollers (30) take up a first same axial position with respect to the workpiece. The workpiece is deformed and expanded by the forming rollers (30) as they move in a direction along the axis of rotation. A second set of rollers (30) are positioned at a second same axial position at a position behind the first set (30) in order to deform the workpiece (col. 3, lines 31-35). The roller sets (30) are each mounted on a common holder (10) and the holder is radially adjusted (col. 3, lines 20-30) for operation by forming wedges (20,22). The first and second roller sets each comprise two forming rollers. The workpiece is formed in a single working cycle. A tensile force is applied to the workpiece by the internal mandrel wedges (20,22) and bolt (25) during expansion.

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Claims 1,6-10,12,16,19-22,28 and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Rode et al. (2,388,643). Rode discloses a method and apparatus for forming a product (B') having a tapered diameter from a workpiece (B) wherein the workpiece (B) is clamped down in a clamping device (pg. 2, col. 1, lines 52-58) and movable longitudinally relative to roller sets having spaced rollers (13), the relative rotation comprising "such chuck moving toward the swaging chuck" (pg. 2, col. 1, lines 57-58) or the workpiece is rotatable with the roller sets (pg. 2, col. 1, lines 3-5,25-27 and 35-36) or an inner bearing unit is rotatable relative to an outer unit (pg. 2, col. 2, lines 23-28). The workpiece and the sets of forming rollers (13) are rotatable about an axis of rotation relative to one another with the roller sets on a tool holder (1,10) being rotatable on a axis that crosses the axis of rotation (pg. 2, col. 1, lines 60-70) by adjustment of set screw (12). The rollers (13) are spaced by spacers (15) (pg. 2, col. 2, lines 4-5). Regarding claim 12, it is inherent that be tapering the roll sets to a closed roll gap, that a tube is closed by the apparatus of Rode.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 13-15,29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rode et al. (2,388,643) in view of Koizumi (JP 59-193724, previously

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cited by PTO). Rode does not disclose that roll sets are mounted and movable on first and second roller holders.

Koizumi teaches a method of manufacturing a workpiece (4) into a product having various diameters in which the workpiece is clamped in a device (2) and rotated by a spindle (1) relative to first (14), second (15) and third (16) roller tools that are mounted on a first common holder (7). The holder is attached to an x-y carriage (5,6). The workpiece is deformed by the first tool (14) which is placed into contact with the workpiece and moved along the workpiece axis of rotation. The second tool (15) is placed into contact with the workpiece at a position behind the first tool and deforms the workpiece and thereafter the third roller (16) works the workpiece. The common holder is rotated about an axis that crosses (is inclined to) the workpiece axis of rotation. Koizumi teaches in fig. 1 that a second roller tool holder having a rolling tool (10) is moved relative to the first roller tool during working, the second roller holder is radially adjustable. Tensile force is varied as the different shaped rollers (14,15,16) come into contact with different positions on the workpiece to draw form the workpiece. It would have been obvious to one skilled in the art at the time of invention to provide Rode with an inclined carriage for moving roll sets as taught by Koizumi in order to taper form a workpiece or work an edge of a workpiece. The provision of movable roll sets that cross a rotation axis are used in Rode, the skilled artisan would have been motivated to provide the invention of Rode with additional holders for roll sets as taught by Koizumi in order to aid in forming a product.

Response to Arguments

Applicants' arguments concerning Pfingston and Recksiek in view of Hoffman are accepted in view of the arguments presented 3-28-2011 and the amendments made to the claims.

Applicant's arguments filed 3-28-2011 have been fully considered but they are not persuasive regarding Schow. The Examiner disagrees with the remarks of 3-28-2011, page 7 where Applicant argues "where the holder is rotated about an axis crossing the axis of rotation between the workpiece and the tools". In claim 16, lines 4 and 5, the scope of the claim is "means for rotating the workpiece and the first set of forming rollers about an axis of rotation relative to each other" and in lines 12 and 13, "said holder is mounted in or on the forming machine in such manner as to be capable of rotation". It is not set forth that the holder is rotated, only relative rotation is set forth. Applicant's use of "can be", "in such manner", "to be capable" is not positively setting forth claim elements and their movement in an apparatus claim.

In the method claim 1, the claim language in lines 3 and 4 is "the workpiece and a first set of forming rollers are rotated about an axis of rotation relative to each other" and in line 12 "are mounted on a common holder and said holder is rotated". Again, this does not positively set forth that the holder is rotatable by rotating means when relative rotation has been set forth in the claim.

The Examiner does not agree with Applicant's characterization of Schow and that it is not applicable to "radial adjustment during operation" as argued on page 9 of the

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remarks. The operation of Schow begins with the wedges being radially adjusted to work the workpiece into a selected shape and then the rollers are moved radially to expand the workpiece so the language of claim 1 "radially adjusted during the working of the workpiece" is met by Schow and the language of claim 16 "during the forming process of the workpiece" is met by Schow. The forming process of Schow begins (col. 3, lines 18-24), "the frame segments will be expanded until the outer edges of the threaded portions 32 of the rollers are in engagement with the internal circumference of the pipe" then in col. 3, lines 28-31 Schow states "the tool is turned within the pipe the serrated rollers and their helical threads act to cut and cause metal working of the metal to both clean and expand the pipe". Schow also sets forth that a slight angle of the threads creates a screwing action, so the radial expansion of the common holder of the first and second sets of rollers also creates a rotation that crosses the axis of rotation of the common holder. The holder of Schow is certainly "mounted in or on the forming machine in such manner as to be capable of rotation about an axis which crosses said axis of rotation and/or radial translation" as claimed in claim 16.

Rode has been set forth to respond to Applicant's claim 16 amendment "spaced apart...do not contact" and Applicant's new claim 31 "such that an outer surface of the workpiece is contacted".

Rode in view of Koizumi is set forth to respond to Applicant's new claim 29 regarding pivotally and radially movable separate tool holders. The roller sets of Rode are pivotally movable in a radial direction to adjust taper angle and the roller sets of Koizumi are radially and/or pivotally movable on at least first and second tool holders.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to EDWARD TOLAN whose telephone number is (571)272-4525. The examiner can normally be reached on M-F.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Edward Tolan/
Primary Examiner, Art Unit 3725